

Charlotte County, Florida
Nontechnical Soil Descriptions



Nontechnical soil descriptions describe soil properties or management considerations specific to a soil map unit or group of map units. These descriptions are written in terminology that nontechnical users of soil survey information can understand and are used to create reports. By linking the description to the soil survey map units these reports can be generated by conservation planners and other NRCS employees for distribution to land users. These descriptions are available through both Toolkit and NASIS.

In this subsection nontechnical descriptions are available through four categories they are Agronomic, ecological community, urban, and Water Quality. Separate map unit to description links are provided for each category.

AGRONOMIC

The following agronomic categories are available and linked through the Land Capability Unit (LCU) that are listed below.

Category

aSOI - Soil Characteristics
bSAC - Soil Agronomic Characteristics
cH2O - Seasonal High Water Table
dCUL - Cultivation Limitations
eERO - Erosion Control
fIRR - Irrigation Needs
gCIT - Citrus Production
hPAS - Pasture and Hayland
iWMG - Water Table Management

<u>Map Symbol</u>	<u>Non hydric LCU</u>	<u>Hydric LCU</u>	<u>Drained LCU</u>	<u>Undrained LCU</u>
2	6s9			
4	6s9(Canaveral) 8s1(Urban Land)			
5	4w2	4w21		
6	4w6	4w23		
7	6s24(Matlacha) 8s1(Urban Land)			
8		8w2		
9	4w3	4w22		

<u>Map Symbol</u>	<u>Non hydric LCU</u>	<u>Hydric LCU</u>	<u>Drained LCU</u>	<u>Undrained LCU</u>
10	4w2	4w21		
11	4w2	4w21		
12	3w2	3w21		
13	3w6	3w24		
14	4w2	4w21		
15		8w2		
16		8w2		
17	6s8			
18	6s24			
19				7w1
20				7w1
22	8w1			
23				8w2
24				8w2
25	7s21(St.Augustine) 8s1(Urban Land)			
26	3w2	3w21		
27				7w3
28	4w2	4w21		
29	4w2	4w21		
33	4w3	4w22		
34	4w3	4w22		
35	3w3	3w22		
36	4w2(Immokalee) 8s1(Urban Land)			
37	6s9			
38		4w22		
39				7w3
40				7w3
41				7w3
42	3w4	3w23		
43	4w2	4w21		
44				7w3
45				7w3
47	No LCU due to land use			
48	7s21			
49				7w3
50	4w8	4w26		
51				7w3
53				7w3
55	3s9			
56				8w2
57				8w2

<u>Map Symbol</u>	<u>Non hydric LCU</u>	<u>Hydric LCU</u>	<u>Drained LCU</u>	<u>Undrained LCU</u>
59	8s1			
61	4s22			
62				7w3
63	4w3	4w22		
64	4w6(Hallandale) 8s1(Urban Land)			
66	No LCU due to land use			
67	4w2(Smyrna) 8s1(Urban Land)			
69	6s24			
70	3w2	3w21		
72	3w2	3w21		
73				7w3
74	3w6	5w2		
75	4w6	5w2		
76	6s8			
77		5w2		
78				7w3

Map Units without an LCU listed are either not suited to these uses or suitability is so variable that it must be determined on-site.

ECOLOGICAL COMMUNITY

The following categories are available below.

kRNG - Rangeland Suitability
IWLD - Wildlife Suitability
mWOD - Woodland Suitability

EC 2 (South Florida Coastal Strand) - Map Units 2,4

EC 3 (Sand Scrub) - Map Units 17, 37, 61

EC 6 (South Florida Flatwoods) - Map Units 6, 9, 11, 13, 28, 29, 33, 35, 42, 43, 50, 63, 70, 76

EC 8 (Cabbage Palm Flatwoods) – Map Units 13*, 50*, 72*

EC 18 (Salt Marsh) - Map Units 8, 15, 23*, 24*, 56, 57

EC 19 (Mangrove Swamp) - Map Units 16

EC 26 (Slough) - Map Units 5, 10, 12, 14, 26, 34, 38, 74, 75, 77

EC 25 (Freshwater Marshes and Ponds) - Map Units 19, 20, 27, 39, 40, 41, 45, 49, 51, 53, 62, 73, 78*

* - These Map Units have more than one type of ecological community.

Map Units without an ecological community listed are not suited to these uses or suitability is so variable that it must be determined on-site.

URBAN USES

The following additional nontechnical descriptions are available for urban interpretations:

oURB - Urban Use Statement

05 - Map Unit 13
06 - Map Unit 17, 37, and 76
13 - Map Unit 55
14 - Map Unit 61
15 - Map Unit 7, 18, 25, 48, 64, 66, 67, and 69
16 - Map Unit 22
17 - Map Unit 2, 4, and 5
18 - Map Unit 17, 37, 55, 61, and 76
19 - Map Unit 8, 23, 24, 56, 57, 15, and 16
21 - Map Unit 19 and 20

pSEP - Septic Tank Absorption Fields

02 - Map Units: 27, 39, 40, 41, 41, 44, 45, 49, 51, 53, 62, 73, 74, 75, and 78
03 - Map Units: 17, 37, 10, 12, 14, 26, 34, 38, 9, 11, 28, 29, 33, 35, 42, 43, 50, 63, 76, 77, 70, and 72
05 - Map Units: 6 and 13
15 - Map Units: 7, 18, 25, 48, 64, 66, 67, and 69
16 - Map Units: 22
17 - Map Units: 2, 4, and 5
19 - Map Units: 8, 23, 24, 56, 57, 15, 16
20 - Map Units: 61
21 - Map Units: 19 and 20

qLRS - Local Roads and Streets

03 - Map Units: 9, 13, 11, 28, 29, 33, 35, 42, 43, 50, 63, 6, 70, and 72

12 - Map Unit 2

15 - Map Units: 7, 18, 25, 48, 64, 64, 66, 67, and 69

16 - Map Units: 22

19 - Map Units: 8, 23, 24, 56, 15, and 16

21 - Map Units: 15, 16, 19, and 20

22 - Map Units: 39, 40, 41, 44, 45, 49, 51, 53, 62, 10, 12, 14, 26, 34, 73, 74, 77, and 78

Map units without a link listed are either not suited to these uses or suitability is so variable that it must be determined on-site.

WATER QUALITY

The last group of nontechnical description in this subsection of this FOTG is that group dealing with water quality, specifically pesticide and nutrient management. The link between the statements and the map units is listed below.

sWQ – Water Quality Statement

tPES – Pesticide Management Statement

uNUT – Nutrient Management Statement

01 - Map Units - 17

02 - Map Units - 25, 37, 55, and 61.

03 - Map Units - 2, 4, 5, 6, 6, 8, 10, 11, 12, 14, 16, 22, 25, 27, 28, 29, 36, 38, 39, 40, 41, 43, 45, 48, 49, 53, 56, 59, 64, 67, 69, and 75.

04 - Map Units - 9, 13, 15, 18, 19, 20, 23, 24, 26, 33, 34, 35, 42, 44, 50, 51, 62, 63, 66, 70, 72, 73, 74, 76, 77 and 78.

Nontechnical Soil Descriptions

3s9 Map Unit 55

"aSOI", "3s9", "This map unit consists of nearly level and gently sloping well or moderately well drained soils on low ridges. They have sandy surface and subsurface layers over loamy subsoils with rock at 20 to 40 inches."

"bSAC", "3s9", "These soils have well aerated root zones above the rock. The available water capacity averages low in the root zone. Rainfall is readily absorbed and there is little runoff. The hazard of erosion is slight."

"cH2O", "3s9", "In normal years these soils have no seasonal high water table within 72 inches."

"dCUL", "3s9", "These soils have severe limitations for cultivated crops due to droughtiness and the depth to bedrock. Droughtiness and the rapid leaching of plant nutrients limit the choice of crops and the potential yields of adapted crops. Cultivation on the contour with alternate strips of cover crops is needed. Crop rotations should include cover crops at least three-fourth of the time. These cover crops and all residues of other crops should be returned to the soil. Yields can be maximized with nutrient management."

"eERO", "3s9", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "3s9", "Irrigation of some high value crops such as citrus is usually feasible where irrigation water is readily available. Good yields of citrus crops can normally be grown without irrigation, but irrigation to maintain optimum yields is usually feasible where irrigation water is readily available."

"gCIT", "3s9", "These soils are well suited to citrus crops where they are in places that are relatively free from freezing in winter. Trees should be planted on the contour and managed so that a good ground cover of close growing vegetation is maintained between the trees to protect the soils from blowing. Good yields of citrus fruit such as oranges and grapefruit can normally be obtained without irrigation. Nutrient management is needed for highest yields."

"hPAS", "3s9", "These soils are moderately suited to pastures. Deep rooting plants such as hybrid bermudagrass and bahiagrass are well adapted. They produce well where nutrient management is practiced. Controlled grazing is important to maintain vigorous plants for maximum yields and to provide good cover to minimize erosion."

"iWMG", "3s9", "Water table management is not normally practiced on these soils."

3w1 Non-hydric, portions of Map Units 38

"aSOI", "3w1", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy surface and subsurface layers 20 to 40 inches thick over moderately to moderately rapidly permeable loamy layers. These soils have limestone bedrock within depths of 40 to 80 inches."

"bSAC", "3w1", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "3w1", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "3w1", "These soils have severe limitations for cultivated crops because of wetness. With a total water management system these soils are well suited to a variety of fruit and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO", "3w1", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "3w1", "Highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w1", "With proper water table management these soils are suited to citrus crops where they occur in places relatively free from damaging cold in winter. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion."

"hPAS", "3w1", "These soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w1", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

3w2 Non-hydric, portions of Map Units 12, 26, 70, 72

"aSOI", "3w2", "This map unit consists of nearly level, poorly drained aSOIs on flatwoods, hammocks, and other flat areas. They have sandy surface and subsurface layers 20 to 40 inches thick over moderately to moderately rapidly permeable loamy layers."

"bSAC", "3w2", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "3w2", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "3w2", "These soils have severe limitations for cultivated crops because of wetness. With a total water management system these soils are well suited to a variety of fruit and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO", "3w2", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "3w2", "Highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w2", "With proper water table management these soils are suited to citrus crops where they occur in places relatively free from damaging cold in winter. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion."

"hPAS", "3w2", "These soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w2", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

3w3 Non-hydric, portions of Map Unit 35

"aSOI", "3w3", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy surface and subsurface layers over moderately to moderately rapidly permeable loamy or sandy subsoils. These soils have dark colored organic stained layers within 40 inches"

"bSAC", "3w3", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages low to very low in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "3w3", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "3w3", "These soils have severe limitations for cultivated crops because of wetness in wet seasons and droughtiness during periods of low rainfall. With a total water management system these soils are well suited to a variety of flower and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. All crop residue should be returned to the soil. Maximum yields require nutrient management."

"eERO", "3w3", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "3w3", "Highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w3", "With proper water table management these soils are suited to citrus crops. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion. Irrigation is required for proper yields."

"hPAS", "3w3", "These soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w3", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

3w4 Non-hydric, portions of Map Unit 42

"aSOI", "3w4", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy surface and subsurface layers over moderately to moderately rapidly permeable loamy or sandy subsoils. These soils have dark colored organic stained layers within 40 inches. These soils have limestone bedrock with 40 to 80 inches or the surface."

"bSAC", "3w4", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages low to very low in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "3w4", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "3w4", "These soils have severe limitations for cultivated crops because of wetness in wet seasons and droughtiness during periods of low rainfall. With a total water management system these soils are well suited to a variety of flower and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. All crop residue should be returned to the soil. Maximum yields require nutrient management."

"eERO", "3w4", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "3w4", "Highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w4", "With proper water table management these soils are suited to citrus crops. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion. Irrigation is required for proper yields."

"hPAS", "3w4", "These soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w4", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

3w6 Non-hydric, portions of Map Units 13, 74

"aSOI", "3w6", "This map unit consists of nearly level poorly drained soils on flatwoods, hammocks, and upland hardwood hammocks. They have sandy surface and subsurface layers and loamy subsoils over limestone bedrock at a depth of 20 to 40 inches."

"bSAC", "3w6", "The root zone of these soils is limited by a seasonal high water table at or near the surface and the limestone bedrock. The available water capacity is low to very low in the root zone. Natural fertility is low but crop response to fertilization is moderate. The internal drainage is slow under natural conditions but the response to artificial drainage is rapid. The hazard of erosion is slight."

"cH2O", "3w6", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "3w6", "These soils have severe limitations for cultivated crops because of wetness and the depth to bedrock. The variety of crops is very limited without a total water table management system that is designed to remove excess water in wet seasons and provide subirrigation during dry periods. Crop rotations should include close growing crops on the land at least two-thirds of the time. Nutrient management maximizes yields. Soil improving cover crops and all crop residues should be left on the ground."

"eERO", "3w6", "Erosion control is not a management concern on these soils."

"fIRR", "3w6", "If cultivated, highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w6", "These soils have poor suitability for citrus crops. Soil depth and the low to very low available water capacity are severe limitations that are difficult to overcome."

"hPAS", "3w6", "These soils are only fairly suited to pastures and hay crops. Low to very low available water capacity is the main limitation. Improved grasses such as the improved bahiagrasses are adapted. Several varieties of clovers are also well adapted where properly managed. Moderate yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w6", "If cropped, these soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths for the planted crop. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

3w20 Hydric, portions of Map Units 38

"aSOI", "3w20", "This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They have sandy surface and subsurface layers 20 to 40 inches thick over moderately to moderately rapidly permeable loamy layers. These soils have limestone bedrock within depths of 40 to 80 inches."

"bSAC", "3w20", "The root zone is limited by a seasonal high water table that is at or slightly above the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "3w20", "In normal years these soils have a seasonal high water table at a depth of 6 inches or less for 2 to 6 months. In other months the water table is usually below this depths. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL", "3w20", "Cultivation of these hydric soils is not recommended. If cultivated, these soils have severe limitations because of wetness. With a total water management system these soils are suited to a variety of fruit and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO", "3w20", "Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR", "3w20", "If cultivated, highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w20", "With proper water table management these soils are suited to citrus crops where they occur in places relatively free from damaging cold in winter. Good management includes adequate water control to maintain the water table at least three feet below the surface. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion."

"hPAS", "3w20", "These hydric soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w20", "If cropped, these hydric soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

3w21 Hydric, portions of Map Units 12, 26, 70, 72

"aSOI", "3w21", "This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They have sandy surface and subsurface layers 20 to 40 inches thick over moderately to moderately rapidly permeable loamy layers."

"bSAC", "3w21", "The root zone is limited by a seasonal high water table that is at or slightly above the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "3w21", "In normal years these soils have a seasonal high water table at a depth of 6 inches or less for 2 to 6 months. In other months the water table is usually below this depths. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL", "3w21", "Cultivation of these hydric soils is not recommended. If cultivated, these soils have severe limitations because of wetness. With a total water management system these soils are suited to a variety of fruit and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO", "3w21", "Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR", "3w21", "If cultivated, highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w21", "With proper water table management these soils are suited to citrus crops where they occur in places relatively free from damaging cold in winter. Good management includes adequate water control to maintain the water table at least three feet below the surface. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion."

"hPAS", "3w21", "These hydric soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w21", "If cropped, these hydric soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

3w22 Hydric, portions of Map Unit 35

"aSOI", "3w22", "This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They have sandy surface and subsurface layers over moderately to moderately rapidly permeable loamy or sandy subsoils. These soils have dark colored organic stained layers within 40 inches"

"bSAC", "3w22", "The root zone is limited by a seasonal high water table that is at or slightly above the surface in wet seasons. The available water capacity averages low to very low in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "3w22", "In normal years these hydric soils have a seasonal high water table at a depth of less than 6 inches for 2 to 6 months. In other months the water table is usually below these depths. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL", "3w22", "Cultivation of these hydric soils is not recommended. If cultivated, severe limitations due to wetness in wet seasons and droughtiness during periods of low rainfall exist. With a total water management system these soils are suited to a variety of flower and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. All crop residue should be returned to the soil. Maximum yields require nutrient management."

"eERO", "3w22", "Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR", "3w22", "Highest yields on these hydric soils require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w22", "With proper water table management these hydric soils are suited to citrus crops. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion. Irrigation is required for proper yields."

"hPAS", "3w22", "These hydric soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w22", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

3w23 Hydric, portions of Map Unit 42

"aSOI", "3w23", "This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They have sandy surface and subsurface layers over moderately to moderately rapidly permeable loamy or sandy subsoils. These soils have dark colored organic stained layers within 40 inches"

"bSAC", "3w23", "The root zone is limited by a seasonal high water table that is at or slightly above the surface in wet seasons. The available water capacity averages low to very low in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "3w23", "In normal years these hydric soils have a seasonal high water table at a depth of less than 6 inches for 2 to 6 months. In other months the water table is usually below these depths. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL", "3w23", "Cultivation of these hydric soils is not recommended. If cultivated, severe limitations due to wetness in wet seasons and droughtiness during periods of low rainfall exist. With a total water management system these soils are suited to a variety of flower and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. All crop residue should be returned to the soil. Maximum yields require nutrient management."

"eERO", "3w23", "Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR", "3w23", "Highest yields on these hydric soils require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w23", "With proper water table management these hydric soils are suited to citrus crops. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion. Irrigation is required for proper yields."

"hPAS", "3w23", "These hydric soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w23", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

3w24 Hydric, portions of Map Units 13, 74

"aSOI", "3w24", "This map unit consists of nearly level poorly drained soils predominantly on sloughs. These soils also occur on low flatwoods, low hammocks, and wetland hardwood hammocks. They have sandy surface and subsurface layers and loamy subsoils over limestone bedrock at a depth of 24 to 40 inches."

"bSAC", "3w24", "The root zone of these hydric soils is limited by a seasonal high water table at or near the surface and the limestone bedrock. The available water capacity is low to very low in the root zone. Natural fertility is low but crop response to fertilization is moderate. The internal drainage is slow under natural conditions but the response to artificial drainage is rapid."

"cH2O", "3w24", "In normal years these soils have a seasonal high water table at a depth of 6 inches or less for 2 to 6 months. In other months the water table is usually below this depth. During periods of high rainfall the water table may be as much as 3 inches above the surface for periods of brief duration."

"dCUL", "3w24", "These hydric soils have severe limitations for cultivated crops because of wetness and the depth to bedrock and cultivation is not recommended. If they are cultivated the variety of crops is very limited without an adequate total water table management system. Crop rotations should include close growing crops on the land at least two-thirds of the time. Nutrient management maximizes yields. Soil improving cover crops and all crop residues should be left on the ground."

"eERO", "3w24", "Erosion control is not a management concern on these hydric soils."

"fIRR", "3w24", "If cultivated, highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "3w24", "These hydric soils have poor suitability for citrus crops. Soil depth and the low to very low available water capacity are severe limitations that are difficult to overcome. If citrus crops are grown on these soils, a total water table management system is needed. Nutrient management maximizes yields."

"hPAS", "3w24", "These soils are only fairly suited to pastures and hay crops. Low to very low available water capacity is the main limitation. Improved grasses such as the improved bahiagrasses are adapted. Several varieties of clovers are also well adapted where properly managed. Moderate yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "3w24", "If cropped, these hydric soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths for the planted crop. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4s22 Map Unit 61

"aSOI", "4s22", "This map unit consists of nearly level and gently sloping, moderately well drained soils on coastal ridges. These soils have sandy layers that are rapidly permeable to depths of more than 80 inches."

"bSAC", "4s22", "The root zone of these soils is limited by a seasonal high water table in wet seasons as well as droughtiness during periods of low rainfall. The available water capacity is low to very low in all layers. Natural fertility is low and response to fertilization is moderate to low. Rainfall is rapidly absorbed and there is little runoff. The hazard of erosion is slight."

"cH2O", "4s22", "In normal years these soils have a seasonal high water table at a depth of between 40 and 60 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4s22", "These soils have severe limitations for cultivated crops. Droughtiness and the rapid leaching of plant nutrients limit the choice of plants and reduces potential yields of adapted crops. If cropped, soil management should include row crops on the contour in alternate strips with close growing crops. Crop rotations should include close growing crops on the land at least two-thirds of the time. Nutrient management maximize yields. Soil improving cover crops and all crop residues should be left on the land."

"eERO", "4s22", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "4s22", "Irrigation of high value crops is usually feasible where irrigation water is readily available."

"gCIT", "4s22", "These soils are suited to citrus crops where they are in places that are relatively free from freezing in winter. Trees should be planted on the contour and managed so that a good ground cover of close growing vegetation is maintained between the trees to protect the soils from blowing. Good yields of citrus fruit such as oranges and grapefruit can normally be obtained without irrigation. Nutrient management is needed for highest yields."

"hPAS", "4s22", "These soils are poorly suited to pastures and hay. These soils require nutrient management and controlled grazing to maintain vigorous plants for acceptable yields."

"iWMG", "3sC", "Water table management is not normally practiced on these soils."

4w2 Non-hydric portions of Map Units 5, 14, 28, 10, 11, 29, 36, 43, 67

"aSOI", "4w2", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy layers more than 72 inches thick."

"bSAC", "4w2", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages low in the root zone. Natural fertility is low but crop response to fertilization is moderate. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w2", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4w2", "These soils have severe limitations for cultivated crops because of wetness. With a total water management system these soils are well suited to a variety of fruit and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO", "4w2", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "4w2", "Highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"gCIT", "4w2", "With proper water table management these soils are suited to citrus crops where they occur in places relatively free from damaging cold in winter. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion."

"hPAS", "4w2", "These soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w2", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w3 Non-hydric portions of Map Units 10, 33, 34, 63

"aSOI", "4w3", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They are dominantly sandy with a moderately slowly subsoil layer within 60 inches."

"bSAC", "4w3", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons and by droughtiness during periods of low rainfall. The available water capacity averages low to very low in the root zone. Natural fertility is low and crop response to fertilization is moderate. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"ch2O", "4w3", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4w3", "These soils have severe limitations for cultivated crops because of wetness in wet seasons and droughtiness during periods of low rainfall. With a total water management system these soils are well suited to a variety of flower and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. All crop residue should be returned to the soil. Maximum yields require nutrient management."

"eERO", "4w3", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "4w3", "Highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"gCIT", "4w3", "With proper water table management these soils are suited to citrus crops. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion. Irrigation is required for proper yields."

"hPAS", "4w3", "These soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w3", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w6 Non-hydric portions of Map Units 6, 64, 75

"aSOI", "4w6", "This map unit consists of nearly level poorly drained soils on flatwoods, hammocks, and upland hardwood hammocks. They have sandy surface and subsurface layers and loamy subsoils over limestone bedrock at a depth of less than 20 inches."

"bSAC", "4w6", "The root zone of these soils is limited by a seasonal high water table at or near the surface and the limestone bedrock. The available water capacity is low to very low in the root zone. Natural fertility is low and crop response to nutrients is low to moderate. The internal drainage is slow under natural conditions but the response to artificial drainage is rapid. The hazard of erosion is slight."

"cH2O", "4w6", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4w6", "These soils have severe limitations for cultivated crops because of wetness and the depth to bedrock. The variety of crops is very limited without an adequate total water table management system that designed to remove excess water in wet seasons and provide subirrigation during dry periods. Crop rotations should include close growing crops on the land at least two-thirds of the time. Nutrient management maximizes yields. Soil improving cover crops and all crop residues should be left on the ground."

"eERO", "4w6", "Erosion control is not a management concern on these soils."

"fIRR", "4w6", "If cultivated, highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"gCIT", "4w6", "These soils have poor suitability for citrus crops. Soil depth and the low to very low available water capacity are severe limitations that are difficult to overcome."

"hPAS", "4w6", "These soils are only fairly suited to pastures and hay crops. Low to very low available water capacity is the main limitation. Improved grasses such as the improved bahiagrasses are adapted. Several varieties of clovers are also well adapted where properly managed. Moderate yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w6", "If cropped, these soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths for the planted crop. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w8 Non-hydric, portions of Map Unit 50

"aSOI", "4w8", "This map unit consists of nearly level, poorly drained soils on flatwoods, hammocks, and other flat areas. They have sandy surface and subsurface layers over moderately to moderately rapidly permeable loamy subsoils below 40 inches. These soils have limestone bedrock within 40 to 80 inches or the surface."

"bSAC", "4w8", "The root zone is limited by a seasonal high water table that comes to near the surface in wet seasons. The available water capacity averages low to very low in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w8", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4w8", "These soils have severe limitations for cultivated crops because of wetness in wet seasons and droughtiness during periods of low rainfall. With a total water management system these soils are well suited to a variety of flower and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. All crop residue should be returned to the soil. Maximum yields require nutrient management."

"eERO", "4w8", "Crops produced on these soils do not normally need special erosion control practices."

"fIRR", "4w8", "Highest yields require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "4w8", "With proper water table management these soils are suited to citrus crops. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion. Irrigation is required for proper yields."

"hPAS", "4w8", "These soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w8", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w21 Hydric portions of Map Units 5, 14, 28, 10, 11, 29, 43

"aSOI", "4w21", "This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They have sandy layers more than 72 inches thick and a spodic horizon within 30 inches."

"bSAC", "4w21", "The root zone is limited by a seasonal high water table that is at or slightly above the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w21", "In normal years these soils have a seasonal high water table at a depth of 6 inches or less for 2 to 6 months. In other months the water table is usually below this depths. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL", "4w21", "Cultivation of these hydric soils is not recommended. If cultivated, these soils have severe limitations because of wetness. With a total water management system these soils are suited to a variety of fruit and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. The cover crops and all other crop residue should be returned to the soil. Maximum yields require good soil tilth and nutrient management."

"eERO", "4w21", "Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR", "4w21", "If cultivated, Highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"gCIT", "4w21", "With proper water table management these soils are suited to citrus crops where they occur in places relatively free from damaging cold in winter. Good management includes adequate water control to maintain the water table at least three feet below the surface. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion."

"hPAS", "4w21", "These hydric soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w21", "If cropped, these hydric soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w22 Hydric portions of Map Units 10, 33, 34, 38, 63

"aSOI", "4w22", "This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They are dominately sandy with a moderately slowly subsoil layer within 60 inches."

"bSAC", "4w22", "The root zone is limited by a seasonal high water table that is at or near the surface in wet seasons and by droughtiness during periods of low rainfall. The available water capacity averages low to very low in the root zone. Natural fertility is low and crop response to fertilization is moderate. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w22", "In normal years these hydric soils have a seasonal high water table at a depth of less than 6 inches for 2 to 6 months. In other months the water table is usually below these depths. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL", "4w22", "Cultivation of these hydric soils is not recommended. If cultivated, severe limitations due to wetness in wet seasons and droughtiness during periods of low rainfall exist. With a total water management system these soils are suited to a variety of flower and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. All crop residue should be returned to the soil. Maximum yields require nutrient management."

"eERO", "4w22", "Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR", "4w22", "Highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"gCIT", "4w22", "With proper water table management these hydric soils are suited to citrus crops. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion. Irrigation is required for proper yields."

"hPAS", "4w22", "These hydric soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w22", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w23 Hydric portions of Map Units 6, 75

"aSOI", "4w23", "This map unit consists of nearly level poorly drained soils on flatwoods, hammocks, and upland hardwood hammocks. They have sandy surface and subsurface layers and loamy subsoils over limestone bedrock at a depth of less than 20 inches."

"bSAC", "4w23", "The root zone of these soils is limited by a seasonal high water table at or near the surface and the limestone bedrock. The available water capacity is low to very low in the root zone. Natural fertility is low and crop response to nutrients is low to moderate. The internal drainage is slow under natural conditions but the response to artificial drainage is rapid. The hazard of erosion is slight."

"cH2O", "4w23", "In normal years these soils have a seasonal high water table at a depth of between 6 and 18 inches for 1 to 4 months. In other months the water table is below these depths. Rarely, only during periods of high rainfall and only for a few days, is the water table above the normal seasonal high water table depth."

"dCUL", "4w23", "These soils have severe limitations for cultivated crops because of wetness and the depth to bedrock. The variety of crops is very limited without an adequate total water table management system that designed to remove excess water in wet seasons and provide subirrigation during dry periods. Crop rotations should include close growing crops on the land at least two-thirds of the time. Nutrient management maximizes yields. Soil improving cover crops and all crop residues should be left on the ground."

"eERO", "4w23", "Erosion control is not a management concern on these soils."

"fIRR", "4w23", "If cultivated, highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"gCIT", "4w23", "These soils have poor suitability for citrus crops. Soil depth and the low to very low available water capacity are severe limitations that are difficult to overcome."

"hPAS", "4w23", "These soils are only fairly suited to pastures and hay crops. Low to very low available water capacity is the main limitation. Improved grasses such as the improved bahiagrasses are adapted. Several varieties of clovers are also well adapted where properly managed. Moderate yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w23", "If cropped, these soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths for the planted crop. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w25 Map Unit 75

"aSOI", "4w25", "This map unit consists of nearly level poorly drained soils on low flatwoods, low hammocks, and wetland hardwood hammocks. They have sandy surface and subsurface layers and loamy subsoils over limestone bedrock at a depth of less than 20 inches.

"bSAC", "4w25", "The root zone of these hydric soils is limited by a seasonal high water table at or near the surface and the limestone bedrock. The available water capacity is low to very low in the root zone. Natural fertility is low but crop response to nutrients is moderate. The internal drainage is slow under natural conditions but the response to artificial drainage is rapid."

"cH2O", "4w25", "In normal years these soils have a seasonal high water table at a depth of 6 inches or less for 2 to 6 months. In other months the water table is usually below this depth. During periods of high rainfall the water table may be above the surface for periods of brief duration."

"dCUL", "4w25", "These hydric soils have severe limitations for cultivated crops because of wetness and the depth to bedrock and cultivation is not recommended. If they are cultivated the variety of crops is very limited without an adequate total water table management system. Crop rotations should include close growing crops on the land at least two-thirds of the time. Nutrient management maximizes yields. Soil improving cover crops and all crop residues should be left on the ground."

"eERO", "4w25", "Erosion control is not a management concern on these hydric soils."

"fIRR", "4w25", "If cultivated, highest yields require irrigation during periods of low rainfall either subirrigated through a water table management system or by sprinklers."

"gCIT", "4w25", "These hydric soils have poor suitability for citrus crops. Soil depth and the low to very low available water capacity are severe limitations that are difficult to overcome."

"hPAS", "4w25", "These soils are only fairly suited to pastures and hay crops. Low to very low available water capacity is the main limitation. Improved grasses such as the improved bahiagrasses are adapted. Several varieties of clovers are also well adapted where properly managed. Moderate yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w25", "If cropped, these hydric soils need a total water table management system to remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths for the planted crop. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

4w26 Hydric, portions of Map Unit 50

"aSOI", "4w26", "This map unit consists of nearly level, poorly drained soils on low flatwoods, low hammocks, and sloughs. They have sandy surface and subsurface layers over moderately to moderately rapidly permeable loamy or sandy subsoils. These soils have dark colored organic stained layers within 40 inches"

"bSAC", "4w26", "The root zone is limited by a seasonal high water table that is at or slightly above the surface in wet seasons. The available water capacity averages low to very low in the root zone. Natural fertility is low but crop response to fertilization is good. Internal drainage is slow but response to artificial drainage is moderate to rapid. The hazard of erosion is slight."

"cH2O", "4w26", "In normal years these hydric soils have a seasonal high water table at a depth of less than 6 inches for 2 to 6 months. In other months the water table is usually below these depths. During periods of high rainfall the water table may be above the surface for periods of brief duration.

"dCUL", "4w26", "Cultivation of these hydric soils is not recommended. If cultivated, severe limitations due to wetness in wet seasons and droughtiness during periods of low rainfall exist. With a total water management system these soils are suited to a variety of flower and vegetable crops. Management should include crop rotations that keep the soil in close growing cover crops at least two-thirds of the time. All crop residue should be returned to the soil. Maximum yields require nutrient management."

"eERO", "4w26", "Crops produced on these hydric soils do not normally need special erosion control practices."

"fIRR", "4w26", "Highest yields on these hydric soils require irrigation during periods of low rainfall. Water can be supplied through subirrigation with a water table management system or by sprinklers."

"gCIT", "4w26", "With proper water table management these hydric soils are suited to citrus crops. Good management includes adequate water control to maintain the water table at least three feet below the surface. The trees should be planted on beds. Nutrient management is a preferred practice. Close growing vegetation between the trees is needed to protect the soil from erosion. Irrigation is required for proper yields."

"hPAS", "4w26", "These hydric soils are well suited to pastures and hay crops. Improved grasses such as pangola grass and bahiagrasses are well adapted. Several varieties of clovers are also well adapted where properly managed. High yields require nutrient management, water table management, and controlled grazing to prevent overgrazing."

"iWMG", "4w26", "A total water table management system should remove excess water rapidly and provide a means of applying subirrigation. Tile drains, open ditches, and/or tail-race recovery systems may be needed to maintain the preferred water table depths of within 18 inches for vegetables and below four feet for citrus. To obtain adequate drainage, the spacing of tile drains is important. Tile drains may be used for subirrigation during periods of low rainfall."

5w2 Hydric portions of 74, 75, 77

"aSOI", "5w2", "This map unit consists of nearly level, poorly drained soils in sloughs of the lowlands. They have sandy layers more than 15 inches deep. These soils are underlain by limestone bedrock."

"bSAC", "5w2", "Wetness, depth to limestone bedrock, and shallow flowing water severely limits the use of the root zone of these soils for agronomic crops."

"cH2O", "5w2", "In normal years these hydric soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months or more. In other months the water table is usually below these depths. These soils are also subject to having shallow flowing water on the surface during wet seasons."

"dCUL", "5w2", "These hydric soils are not suited to cultivated crops without an extensive water table management system."

"eERO", "5w2", "Erosion is not a management concern on crops produced on these hydric soils."

"fIRR", "5w2", "If cultivated, highest yields require irrigation either subirrigated through the extensive water table management system or by sprinklers."

"hPAS", "5w2", "These hydric soils are not suited to pasture or hay crops without an extensive water table management system."

"iWMG", "5w2", "If these hydric soils are cultivated, an extensive water table management system is needed for crop and pasture production on these soils. It should remove excess water rapidly and provide a means of applying subirrigation. Dikes and a pumping systems are needed for water control and tile drains and open ditches are needed to maintain the preferred water table depth. Rarely are drainage and water movement protection economically feasible and environmentally sound."

6s8 Map Unit 17, 76

"aSOI", "6s8", "This map unit consists of nearly level, somewhat poorly and moderately well drained soils on low ridges of the flatwoods. They have sandy layers to more than 72 inches deep. A layer 20 to 60 inches below the surface is weakly cemented with dark colored organic material."

"bSAC", "6s8", "The root zone is limited by a water table during wet seasons and by droughtiness during periods of low rainfall. The available water capacity is very low in the root zone. Natural fertility is very low and crop response to nutrient management is only fair. The internal drainage rate is slow under natural conditions but response to artificial drainage is rapid."

"cH2O", "6s8", "In normal years these soils have a seasonal high water table at a depth of 18 and 40 inches for 1 to 4 months. In other months the water table is usually below this depth. Only rarely, during periods of high rainfall, is the water table above 18 inches."

"dCUL", "6s8", "Due to the very low natural fertility, wetness in wet seasons, droughtiness during periods of low rainfall, and the rapid leaching of plant nutrients, these soils are not suited to cultivated field crops."

"eERO", "6s8", "If these soils are cultivated, erosion control measures are not normally needed."

"fIRR", "6s8", "Irrigation of high value crops is usually feasible where irrigation water is readily available. The rate of water application should be low enough to prevent runoff and erosion." A well designed irrigation system to maintain optimum moisture conditions is needed to assure acceptable citrus yields."

"gCIT", "6s8", "These soils are only fairly to poorly suited for citrus trees even where they are in places relatively free from freezing temperatures. A good ground cover of close growing plants is needed between the trees to protect the soil from blowing and washing. Poor to fair yields of oranges and grapefruit are usually obtained without irrigation."

"hPAS", "6s8", "These soils have only fair suitability for pastures. Grasses such as pangola grass and bahiagrass make only fair growth where an intensive nutrient management system is maintained. Clovers are not adapted."

"iWMG", "6s8", "Water table management is not normally practiced on these soils."

6s9 Map Units 2, 4, 37

"aSOI", "6s9", "This map unit consists of nearly level, somewhat poorly and moderately well drained soils on low ridges of the flatwoods. They have sandy layers more than 80 inches deep."

"bSAC", "6s9", "The root zone is limited by a water table during wet seasons and by droughtiness during periods of low rainfall. The available water capacity is very low in the root zone. Natural fertility is very low and crop response to nutrient management is only fair. The internal drainage rate is slow under natural conditions but response to artificial drainage is rapid."

"cH2O", "6s9", "In normal years these soils have a seasonal high water table at a depth of 18 and 40 inches for 1 to 4 months. In other months the water table is usually below this depth. Only rarely, during periods of high rainfall, is the water table above 18 inches."

"eERO", "6s9", "If these soils are cultivated, erosion control measures are not normally needed."

"fIRR", "6s9", "Irrigation of high value crops is usually feasible where irrigation water is readily available. The rate of water application should be low enough to prevent runoff and erosion." A well designed irrigation system to maintain optimum moisture conditions is needed to assure acceptable citrus yields."

"gCIT", "6s9", "These soils are only fairly to poorly suited to citrus trees even where they are in places relatively free from freezing temperatures. A good ground cover of close growing plants is needed between the trees to protect the soil from blowing and washing. Poor to fair yields of oranges and grapefruit are usually obtained without irrigation."

"hPAS", "6s9", "These soils have only fair suitability for pastures. Grasses such as pangola grass and bahiagrass make only fair growth where an intensive nutrient management system is maintained. Clovers are not adapted."

"iWMG", "6s9", "Water table management is not normally practiced on these soils."

6s24 Map Unit 7, 18, 69

"aSOI", "6s24", "This map unit consists of nearly level some what poorly drained soils by fill material by earth-moving operations."

"bSAC", "6s24", "This soil is not normally used for agricultural operations."

"cH2O", "6s24", "In normal years these soils have a seasonal high water table at a depth of between 2 and 3 feet for 1 to 3 months annually."

"dCUL", "6s24", "Due to the gravelly nature of this soil these soils are not suited to cultivated crops."

"eERO", "6s24", "Due to the lack of these soils being cultivated, erosion control, is not a management concern."

"fIRR", "6s24", "Due to lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "6s24", " Due to the gravelly nature of this soil these soils are not suited to hay and pasture."

"iWMG", "6s24", "When used for sanitary facilities water table control is needed."

7s21 Map Units 25, 48

"aSOI", "7s21", "This map unit consists of somewhat poorly drained nearly level to gently sloping soils on disturbed areas near the coast. They have uncoated sand layers to depths of more than 80 inches."

"bSAC", "7s21", "These soils have an excessively aerated root zone to depths of the seasonal high water table. The available water capacity is very low. Natural fertility is very low and response to fertilizers is very low. Rainfall is rapidly absorbed but moves rapidly through the soil and very little is retained. There is a hazard of gully erosion."

"cH2O", "7s21", "In normal years these soils have a seasonal high water table at a depth of between 18 and 30 inches for 1 to 4 months. In other months the water table is below the seasonal high water table depth. Only rarely is the water table above that depth."

"dCUL", "7s21", "Due to extreme droughtiness, these soils are not suited to cultivated crops."

"eERO", "7s21", "Due to the lack of these soils being cultivated, erosion control is not a management concern."

"fIRR", "7s21", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "7s21", "Due to extreme droughtiness, these soils are not suited to hay and pasture."

"iWMG", "7s21", "Water table management is not a normal practice on these soils because of the lack of cultivation and an available water source."

7w1 Map Units 19, 20

"aSOI", "7w1", "This map unit consists of nearly level, very poorly drained organic soils in depressional areas. They have thick layers of partially decomposed remains of aquatic plants."

"bSAC", "7w1", "The root zone is limited by water that is above the surface in wet seasons. The available water capacity averages high in the root zone. Natural fertility is high. The internal drainage rate is very slow in the natural condition and seepage water seeps from the soil in wet seasons."

"cH2O", "7w1", "In normal years these soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months of most years. During other months the water table is deeper. These soils are also subject to frequent ponding and/or flooding. Only rarely is the water table below the surface for an extended period."

"dCUL", "7w1", "If water control measures are established, these soil would be moderately well to well suited to cultivated crops. Due to the difficulty of installing these measures and the lack of outlets in most areas, they have seldom, if ever, been used for crops."

"eERO", "7w1", "Due to the lack of these soils being cultivated, erosion control is not a management concern."

"fIRR", "7w1", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "7w1", "If water control measures are established, these soil would be moderately well to well suited to improved pastures. Due to the difficulty of installing these measures and the lack of outlets in most areas, they have seldom, if ever, been used for pasture."

"iWMG", "7w1", "Water table management is not a normal practice on these soils because of the lack of cultivation."

7w3 Map Units 27, 39, 40, 41, 44, 45, 49, 51, 53, 62, 73, 78

"aSOI", "7w3", "This map unit consists of nearly level, very poorly drained soils on depressions. They have sandy or loamy surface layers and sandy, loamy or clayey subsoil layers."

"bSAC", "7w3", "The root zone is limited by water that is above the surface in wet seasons. The available water capacity averages moderate in the root zone. Natural fertility is moderate. The internal drainage rate is very slow in the natural condition and seepage water seeps from the soil in wet seasons."

"cH2O", "7w3", "In normal years these soils have a seasonal high water table within 6 inches of the surface for 2 to 6 months of most years. During other months the water table is deeper. These soils are also subject to frequent ponding. Only rarely is the water table below the surface for an extended period."

"dCUL", "7w3", "Due to extreme wetness, these soils are not suited to cultivated crops."

"eERO", "7w3", "Due to the lack of these soils being cultivated, erosion control is not a management concern."

"fIRR", "7w3", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "7w3", "If water control measures are established, these soil would be moderately well suited to improved pastures. Due to the difficulty of installing these measures and the lack of outlets in most areas, they have seldom, if ever, been used for pasture."

"iWMG", "7w3", "Water table management is not a normal practice on these soils because of the lack of cultivation."

8s1 Map Units 4, 7, 25, 36, 59, 64, 67

"aSOI", "8s1", "This map unit consists of miscellaneous areas where no soil exists and has no value for agricultural uses."

"bSAC", "8s1", "Due to an impervious surface these areas are not vegetated."

"cH2O", "8s1", "These soils have a highly variable water table."

"dCUL", "8s1", "Due to the impervious surface, these soils are not suited to cultivated crops."

"eERO", "8s1", "Due to the lack of these soils being cultivated, erosion control is not a management concern."

"fIRR", "8s1", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "8s1", "Due to the impervious surface, actions, these soils are not suited to hay and pasture."

"iWMG", "8s1", "Water table management is not a normal practice on these soils because of the lack of cultivation."

8w1 Map unit 22

"aSOI", "8w1", "This map unit consists of narrow strips of land between water and the inland. These strips of land consist of quartz sand and shell fragments that are constantly shifted by wave action."

"bSAC", "8w1", "Beaches are not vegetated due to tidal and wave actions."

"cH2O", "8w1", "In normal years these soils have a seasonal high water table at the surface throughout the year. These soils are also subject to daily tidal flooding. Only rarely is the water table below the surface for an extended period."

"dCUL", "8w1", "Due to tidal and wave actions, these soils are not suited to cultivated crops."

"eERO", "8w1", "Due to the lack of these soils being cultivated, erosion control is not a management concern."

"fIRR", "8w1", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "8w1", "Due to tidal and wave actions, these soils are not suited to hay and pasture."

"iWMG", "8w1", "Water table management is not a normal practice on these soils because of the lack of cultivation."

8w2 Map Units 8, 15, 16, 23, 24, 56, 57

"aSOI", "8w2", "This map unit consists of nearly level, very poorly drained soils of the tidal marshes."

"bSAC", "8w2", "The variety of plants growing on these soils is limited to those that are tolerant of extreme wetness and saline conditions."

"cH2O", "8w2", "In normal years these soils have a seasonal high water table at the surface throughout the year. These soils are also subject to daily tidal flooding. Only rarely is the water table below the surface for an extended period."

"dCUL", "8w2", "Due to extreme wetness and salinity, these soils are not suited to cultivated crops."

"eERO", "8w2", "Due to the lack of these soils being cultivated, erosion control is not a management concern."

"fIRR", "8w2", "Due to the lack of cultivation, irrigation is not a normal practice on these soils."

"hPAS", "8w2", "Due to extreme wetness and salinity, these soils are not suited to hay and pasture."

"iWMG", "8w2", "Water table management is not a normal practice on these soils because of the lack of cultivation."

ECOLOGICAL COMMUNITIES

kRNG - Rangeland

IWLD - Wildlife

mWOD - Woodland

Sand Scrub - Map Units: 17, 37, 61, 76

"kRNG", "03", "This Sand Scrub range site supports a dense stand of trees and shrubs and has limited potential for producing native forage. Sites in excellent condition produce 1500 to 3500 pounds per acre annually. Fifteen to 40 acres or more are usually needed per animal unit. Little forage will be available if the tree canopy cover exceeds 60%. Forage is usually 75% grasses and grass-like plants, 15% trees and shrubs, and 10% forbs."

"IWLD", "03", "This Sand Scrub site is suited to deer and turkey, especially as escape cover. Many birds inhabit the area including warblers, towhees, flycatchers, scrub jays, and quail. Native legumes furnish food (seeds) for the birds. Fruits of palmetto, gopher apple, and various species of oak are also a good food source. Timber harvest and other disturbances increase wildlife food by increasing the amount and types of Herbaceous plants and by sprout production."

"mWOD", "03", "This Sand Scrub site has a low potential for commercial production of wood and timber. The soils create severe equipment limitations and moderate seedling mortality problems. Sand pine is a commercial species suited to planting. It has a potential annual growth of approximately 0.4 to 0.5 cords per acre."

South Florida Flatwoods - Map Units: 6, 9, 11, 13, 28, 29, 33, 35, 42, 43, 50, and 70

"kRNG", "06", "This South Florida Flatwoods range site has the potential for producing significant amounts of high quality forage from creeping bluestem, chalky bluestem, and indianguass. Sites in excellent condition produce 3000 to 6000 pounds per acre annually. Three to 16 acres or more are usually needed per animal unit. Little forage will be available if the tree canopy cover exceeds 60%. Forage is usually 75% grasses and grass-like plants, 15% trees and shrubs, and 10% herbaceous plants."

"IWLD", "06", "This South Florida Flatwoods site is well suited to deer, turkey, and quail. It is fairly suited to squirrels and well suited to many songbirds. Palmetto fruit, pine mast, oak acorns, legume seed, and grasses are good sources of wildlife food. Mature hardwoods and snags provide good nesting sites for birds. This site is also well suited to bobcat, raccoons, opossums, and skunks. It is poorly suited to dove."

"mWOD", "06", "This South Florida Flatwoods site has a moderate potential for commercial production of wood and timber. The soils create moderate equipment limitations and moderate seedling mortality rates. Commercial species suited to planting and their potential annual growth in cords are as follows: Slash pine, 0.9 to 0.7. Longleaf pine, 0.5 to 0.4."

Cabbage Palm Hammock - Map Units: 13*, 50*, 72

"kRNG", "13", "This Cabbage Palm Hammock range site has a low potential for producing forage due to a dense canopy of and cabbage palms. It provides livestock protection in cold and hot weather. Sites in excellent condition produce 2000 to 4000 pounds per acre each year. Ten to 30 acres per animal unit are needed. If the tree canopy cover exceeds 60%, little forage will be available. The annual forage produced is 55% grasses and grass-like plants, 25% trees and shrubs, and 20% herbaceous plants."

"IWLD", "13", "This Cabbage Palm Hammock site is well suited to deer, turkey, squirrel, black bear, feral and wild hogs, woodpeckers, and owls. Palm and palmetto fruit, pine mast, oak acorns, legume seed, and grasses are good sources of wildlife food. Habitat is poor for quail and dove and fair for most songbirds and squirrels."

"mWOD", "14", "This Cabbage Palm Hammock site has a moderately high to high potential for commercial production of wood and timber. The soils create moderate equipment limitations and moderate seedling mortality rates. Commercial species suited to planting and their potential annual growth in cords are as follows: Slash pine, 1.5 to 1.3. Loblolly pine, 1.2 to 1.0. Sweetgum, 1.5 to 1.3. Sycamore is also suitable for planting."

Freshwater Marshes and Ponds - Map Units: 19, 20, 27, 39, 40, 41, 44, 45*, 49, 51, 53, 62, 73, 78

"kRNG", "25", "This Freshwater Marsh and Ponds range site has the potential for producing significant amounts of high quality forage from a variety of high quality forage plants. Sites in excellent condition produce 5000 to 10000 pounds per acre annually. Three to 13 acres or more are usually needed per animal unit. Forage is usually 80% grasses and grass-like plants, 5% trees and shrubs, and 15% herbaceous plants."

"IWLD", "25", "This Freshwater Marsh and Ponds site is well suited to a wide variety of wetland wildlife species including waterfowl, reptiles, amphibians, and mammals. These species must withstand ponding of long or very long duration. Inhabitants include mink, otter, raccoons, herons, bitterns, ibis, cranes, snipe, ducks, kites, killdeer, caracara, and hawks. This community also serves as a water source for species from surrounding communities."

"mWOD", "25", "This Freshwater Marsh and Ponds site is seldom used for the commercial production of wood and timber. The soils create very severe limitations that are difficult to overcome."

Slough - Map Units: 5, 10 , 12, 14, 26, 34, 38, 74, 75, 77

"kRNG", "26", "This Slough range site has the potential for producing significant amounts of high quality forage from a variety of high quality forage plants such as maidencanes, bluestems, and panicums. Sites in excellent condition produce 3000 to 6000 pounds per acre annually. Four to 16 acres or more are usually needed per animal unit. Forage is usually 85% grasses and grass-like plants and 15% herbaceous plants."

"IWLD", "26", "This Slough site is well suited to snakes, frogs, salamanders, raccoons, and wading birds. The grass dominated vegetation is a highly valued food source for quail and deer; however, it provides poor cover for these and most other wildlife species except at its confluence with other communities."

"mWOD", "26", "This Slough site is seldom used for the commercial production of wood and timber. The soils create very severe limitations that are difficult to overcome."

* - These Map Units have more than one type of ecological community.

URBAN USES

oURB - Urban Use Statement

pSEP - Septic Tank Absorption Fields

qLRS - Local Roads and Streets

Map Units 27, 39, 40, 41, 44, 45, 49, 51, 53, 62, 73, 74, 75, and 78

"pSEP", "02", "This soil has severe limitations for septic tank absorption fields. Ponded water tables and organic soil materials interfere with the absorption of effluent from septic tanks and pose risks of contamination to adjacent surface waters."

Map Units 17, 37, 10, 12, 14, 26, 34, 38, 9, 11, 28, 29, 33, 35, 42, 43, 50, 63, 76, 77, 70, and 72

"pSEP", "03", "This soil has severe limitations for septic tank absorption fields. High water tables interfere with the absorption of effluent from septic tanks and pose risks of contamination to adjacent surface waters. Septic tank absorption fields can be mounded to maintain the system above the seasonal high water table."

Map Units 9, 13, 11, 28, 29, 33, 35, 42, 43, 50, 63, 6, 70, and 72

"qLRS", "03", "This soil has severe limitations for local roads and streets. For any construction, care should be taken not to impede natural drainage or impound water on the site and adjacent areas. Well designed culvert placement beneath any fill and use of existing water conveying landscapes can help minimize disturbance to natural drainage"

Map Unit 13

"oURB", "05", "Suitability is poor for most urban uses because of a seasonal high water table and bedrock within 40 inches of the soil surface, fine textured soil material near the soil surface. House or small building pads can be elevated using suitable fill. The fill can be placed with a slight grade to allow water to drain away from the house or building. Landscape considerations should include use of species that are adapted to wetness, alkalinity, and fine textured soils. "

Map Units 6, and 13

"pSEP", "05", "This soil has severe limitations for septic tank absorption fields. High water table, bedrock, and fine textured soil material interfere with the absorption of effluent from septic tanks and creates a risk of contamination to adjacent surface waters and system failure. Absorption fields can be mounded or fine textured soil layers can be excavated and replaced with suitable soil material. Absorption field laterals should be installed downslope from dwellings."

Map Units 17, 37, and 76

"oURB", "06", "URBAN USE: Suitability is poor for most urban land uses because of a seasonal high water table within 40 inches of the soil surface. House and small building pads can be elevated using suitable fill. The fill can be placed with a slight grade to allow water to drain away from the house or building. Irrigation can be helpful in establishing plants and for maintenance during dry periods. Landscaping considerations should include use of species that are adapted to wetness."

Map Unit 2

"qLRS", "12", "This soil has no significant limitations important in the construction of local roads and streets."

Map Unit 55

"oURB", "13", "This soil is moderately suited to most urban uses because of the depth to bedrock. Irrigation can be helpful in establishing and maintaining lawns and landscaping plants."

Map Unit 55

"pSEP", "13", "Hard bedrock interferes with placement of the septic tank. In some areas, bedrock may be soft enough so that it can be broken and excavated with light power equipment. Where bedrock cannot be excavated, the site may be filled to accommodate the tank and absorption field. Absorption field laterals should be installed on a slight downslope gradient. Absorption fields should be placed downslope from dwellings. Irrigation can be helpful in establishing and maintaining lawns and landscaping plants."

"qLRS", "13", "This soil has no significant limitations important in the construction of local roads and streets."

Map Unit 61

"oURB", "14", "This soil is moderately suited to most urban land uses. Because of the very rapid permeability of this soil, careful selection of on-site waste disposal areas can help prevent contamination of shallow groundwater and adjacent surface waters. Irrigation, mulching, and fertilizing help establish and maintain lawns and landscaping plants."

Map Units 7, 18, 25, 48, 64, 66, 67, and 69

"oURB", "15", "This soil survey map unit is so variable that no general suitability for urban land use can be given. On-site investigation by a soil scientist and/or engineer is recommended for any urban land use."

Map Units 7, 18, 25, 48, 64, 66, 67, and 69

"pSEP", "15", "This soil survey map unit is so variable that no general interpretations for the installation of any type on-site sewage disposal system can be given. On-site investigation by a soil scientist and/or engineer is recommended."

Map Units 7, 18, 25, 48, 64, 66, 67, and 69

"qLRS", "15", "This soil survey map unit is so variable that no general interpretations for the construction of local roads and streets can be given. On-site investigation by a soil scientist and/or engineer is recommended."

Map Unit 22

"oURB", "16", "Beaches are unsuited to any urban use because of frequent tidal flooding and instability of the land surface."

Map Unit 22

"pSEP", "16", "Beaches are unsuited to the installation of any type on-site sewage disposal system due of frequent tidal flooding."

Map Unit 22

"qLRS", "16", "Beaches are unsuited to the construction of local roads and streets due to frequent tidal flooding,"

Map Units 2, 4, and 5

"oURB", "17", "This map unit is unsuited to most urban uses. Shifting sands, salt spray, and very rapid permeability are the major limitations. Existing natural vegetation should be protected since it helps protect the site from coastal erosion. Where vegetation has been removed or has not grown naturally, salt and drought tolerant vegetation is best adapted for landscaping. Irrigation and nutrient management helps establish and maintain vegetation."

Map Units 2, 4, and 5

"pSEP", "17", "Septic tank absorption fields should be placed landward of coastal waters. Cut and fill can be used to reduce slope limitations. Low density development of home sites on septic tanks is recommended since there is risk of pollution to coastal waters. In most areas, homes should be constructed on pilings to reduce risk of flooding during severe coastal storms."

Map Units 27, 39, 40, 41, 44, 45, 49, 51, 53, 62, 10, 12, 14, 26, 34, 38, 9, 11, 28, 29, 33, 35, 42, 43, 50, 63, 6, 73, 74, 75, 78, 77, 70, and 72

"oURB", "18", "This soil has severe limitations for sanitary facilities, building site development, and recreational uses. Water control measures are needed to overcome excessive wetness."

Map Units 17, 37, 55, 61, and 76

"qLRS", "18", "Where constructing local roads and streets on these soils a good vegetative cover is needed to stabilize the sandy surface. Sidewalls of shallow excavations require shoring to prevent cave-ins."

Map Units 8, 23, 24, 56, 57, 15, and 16

"oURB", "19", "This soil is not suited to urban uses due to tidal flooding."

Map Units 8, 23, 24, 56, 57, 15, and 16

"pSEP", "19", "This soil is not suited to any on-site sewage disposal system due to wetness and tidal flooding."

Map Units 8, 23, 24, 56, and 57

"qLRS", "19", "This soil is not suited to local roads and streets due to wetness and tidal flooding."

Map Unit 61

"pSEP", "20", "These soils have no significant limitations for septic tank absorption fields."

Map Units 19 and 20

"oURB", "21", "This soil has a low suitability for urban uses because of the low strength of the organic layers and the likelihood of subsidence if drained."

Map Units 19 and 20

"pSEP", "21", "This soil has severe limitations for any on-site waste disposal system due to wetness and subsidence of the organic soil material."

Map Units 15, 16, 19, and 20

"qLRS", "21", "This soil has severe limitations for local roads and streets due to wetness and subsidence of the organic soil material. Excavating and filling is required to assure roads function properly."

Map Units 39, 40, 41, 44, 45, 49, 51, 53, 62, 10, 12, 14, 26, 34, 38, 73, 74, 75, 77, and 78

"qLRS", "22", "This soil has a low potential for local roads and streets. Fill is needed to make sure the roads are usable."

WATER QUALITY: PESTICIDE AND NUTRIENT MANAGEMENT

sWQ – Water Quality Statement

tPES – Pesticide Management Statement

uNUT – Nutrient Management Statement

Map Unit 17

"sWQ", "01", "These soils have a low potential for pesticide leaching to groundwater and a low potential for pesticide runoff to surface water. They have a medium or high potential for nitrogen leaching to groundwater and a low potential for phosphorous runoff to surface runoff."

"tPES", "01", "The Florida Pest Control Guide contains a listing of pesticides suitable for each type of pest and is available from the Cooperative Extension Service. Read and follow pesticide labels."

"uNUT", "01", "A soil test will be used as a guide to determine plant nutrient needs. In addition, a listing of nitrogen and phosphorous requirements by crop type is available from the Cooperative Extension Service. Nutrients should be added at the rate needed by the crop grown or according to the producer's goals, whichever is lower."

Map Units 37, 55, and 61

"sWQ", "02", "These soils have a medium or high potential for pesticide leaching to the groundwater and a low potential for pesticide runoff from the field(s) to surface water. They have a medium or high potential for nitrogen leaching to the groundwater and a low potential for phosphorous runoff to surface runoff."

"tPES", "02", "The Florida Pest Control Guide from the Cooperative Extension Service contains a list of pesticides suited to each pest. This list also contains Relative Leaching Potential Index (RLPI) values. While any approved pesticide listed in the guide can be used, the applicator should consider for use pesticides with a larger RLPI value and Health Advisory Level (HAL or HALEQ) value. Read and follow pesticide labels."

"uNUT", "02", "A soil test will be used as a guide to determine plant nutrient needs. In addition, a listing of nitrogen and phosphorous requirements by crop type is available from the Cooperative Extension Service. Nutrients shall be added at the rate needed by the crop grown or according to the producer's goals, whichever is lower."

Map Units 3, 4, 5, 6, 7, 8, 10, 12, 14, 16, 22, 27, 28, 29, 36, 38, 40, 41, 43, 45, 48, 49, 53, 56, 59, 64, 67, 69, and 75

"sWQ", "03", "These soils have a medium or high potential for pesticide leaching to groundwater and a medium to high potential for pesticide runoff to surface water. They have a medium or high potential for nitrogen leaching to the groundwater and a medium or high potential for phosphorous runoff to surface runoff."

"tPES", "03", "The Florida Pest Control Guide from the Cooperative Extension Service contains a list of pesticides suited to each pest. This list also contains Relative Leaching Potential Index (RLPI) and Relative Runoff Potential Index (RRPI) values. While any approved pesticide listed in the guide can be used, the applicator should consider for use pesticides with a larger RLPI value, RRPI value, Health Advisory Level (HAL or HALEQ) value, and Aquatic Toxicity value. Read and follow pesticide labels."

"uNUT", "03", "A soil test will be used as a guide to determine plant nutrient needs. In addition, a listing of nitrogen and phosphorous requirements by crop type is available from the Cooperative Extension Service. Nutrients shall be added at the rate needed by the crop grown or according to the producer's goals, whichever is lower."

Map Units 9, 13, 15, 19, 20, 26, 33, 34, 35, 42, 44, 50, 51, 57, 62, 63, 66, 70, 72, 73, 74, 76, 77, and 78

"sWQ", "04", "These soils have a low potential for pesticide leaching to groundwater and a medium or high potential for pesticide runoff to surface water. They have a medium or high potential for nitrogen leaching to groundwater and a medium or high potential for phosphorous runoff to surface runoff."

"tPES", "04", "The Florida Pest Control Guide from the Cooperative Extension Service contains a listing of pesticides suited to each pest. This list also contains Relative Runoff Potential Index (RRPI) values. While any approved pesticide listed in the guide can be used, the applicator should consider for use pesticides with a larger RRPI value and a larger Aquatic Toxicity value. Read and follow pesticide labels."

"uNUT", "04", "A soil test will be used as a guide to determine plant nutrient needs. In addition, a listing of nitrogen and phosphorous requirements by crop type is available from the Cooperative Extension Service. Nutrients shall be added at the rate needed by the crop grown, or according to the producer's goals, whichever is lower."